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ABSTRACT

This action research project was undertaken to evaluate the difference between the instructional theory as espoused and as practiced by a graduate teaching assistant. The study took place in an elective pharmacy course, involving 3 class sessions and 25 students. The qualitative research methodology consisted of identifying the espoused or ideal theory using self-reflection, journaling, and dialogue with colleagues. The ideal theory identified was "practical": the instructor intended to involve students in the learning process and in the evaluation of the methodology employed. Once this ideal theory was identified, qualitative and quantitative data dealing with the instructional theory as practiced were gathered and compared with the ideal theory. Findings indicated a gap between the ideal espoused theory and the theory in practice. Several reasons, both organizational and personal, for the gap between these two theories were identified. Appendices include session evaluation forms used to collect data, written comments, and results of student evaluation for training lesson. (Contains 11 references.) (Author/ND)

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Running Head: REFLECTION ON TEACHING

Ideal and Current Teaching Theory: Analysis and Reflection

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Abstract

This project evaluated the difference between the instructional theory as espoused and as practiced. This action research study took place in an elective pharmacy course, involving three class sessions and 25 students.

The qualitative methodology consisted of identifying the espoused or ideal theory using self-reflection, journaling, and dialogue with colleagues. The ideal theory identified was "practical." Once this was accomplished, qualitative and quantitative data dealing with instruction theory as practiced was gathered and compared with the ideal theory.

Findings indicated a gap between the ideal espoused theory and the theory in practice. Several reasons for the gap between these two theories were identified.

Introduction

Some aspire to the role of college professor in order to conduct research, some to teach, and others to do both. I am in that "both" category. I have developed a passionate interest in the area of curricular design and theory and with the foundational questions surrounding the field. "What is curriculum?" "How does one develop, implement, and evaluate it to create educational environments which are successful for students and teachers?" "How can one unite theory and practice?" These are the issues which challenge my thinking. Likewise, working with students, enabling them to become independent learners, stimulating their thinking, and motivating them to learn is fascinating to me. Thus as I have engaged in studying the theories related to curriculum and teaching I have become more aware of my own philosophical and theoretical beliefs regarding them. This awareness led me to initiate this study into the extent to which my espoused theoretical beliefs about teaching and learning matched my actions in the world of practice. The research was based upon the theoretical perspective that reflection in and on action is an essential ingredient in successful teaching.

Theoretical Perspective

Reflective practice consists of two different elements, reflection-in-action and reflection-on-action. Reflection-in-action is usually based upon an individual experiencing some form of event or experience and then thinking about what he or she is doing while engaged in the activity (1). An example of this is when an individual notes confusion in the audience during a presentation and considers how to best rectify

the problem.

Reflection-on-action is based on the individual reviewing prior experiences and determining what led him or her to that point (1). Using the same example as above, the individual would consider how to rectify the problem after the presentation was done and before the next presentation was performed. Utilizing both elements of reflective practice allows for critical self-evaluation, thus aiding in his or her quest for personal and professional growth. This has direct applications to the art of teaching.

In teaching, reflective practice can benefit the individual by providing a means of self and peer assessment and easing the changes necessary to improve one's own teaching. This reflection involves critically evaluating oneself reflecting upon questions as: "What is the role of my students in classroom activities?" or "What is my role in classroom activities?" and "How will my use of a variety of instructional strategies impact on my students?" (2). When teachers use reflection, they can personalize their own professional development (2). In addition, reflection can "...help teachers to become aware of the values that they have incorporated during their socialization into the profession..." and make teachers care about teaching (3). In addition, according to McBride and Skaw, "As educators experience dissonance in their daily professional practice, the process of reflection can help them frame their understanding of the world in new ways and potentially change their professional actions" (4). While self-reflection is one way to practice reflection, it is also possible for teachers to reflect with colleagues through collaborative or peer reflection (2). Such collaborative efforts add new dimensions to the reflective process by incorporating new perspectives and

dialogue to the analytical process.

Purpose and Methodology

The purpose of this study was to expand my capacity to engage in reflective practice and to use the results to improve my teaching. It involved comparing my current teaching methods with what I consider to be my ideal teaching theory. The question addressed was, "To what extent does my espoused theory of teaching match my theory as it occurs in practice." I used a qualitative approach including self-reflection (5), observation (6), and quantitative and qualitative results from student surveys (7). The analysis of my teaching was conducted from teaching that occurred in a course entitled "Institutional Practice." It is an elective in the undergraduate pharmacy program. It addresses the non-community oriented side of pharmacy practice. A few examples include pharmacy practice in hospitals, nursing homes, and home health care. The Institutional Practice course was chosen for the study for two reasons. First, I had been assigned the class as part of my graduate teaching responsibilities. Second, I had some familiarity with the course content.

The first step in preparing to teach the class and to conduct this study was to determine my ideal teaching theory. I engaged in a review of the literature regarding world-views and the theoretical constructs underlying curriculum design and delivery as well as the philosophical foundations upon which they are built. I participated in discussions with colleagues to test my views and gain deeper insights into them. I engaged in self-reflection and journaling in which I tested my own ideas against those I was studying (1). I was also involved in a graduate class in which I was required to

describe my beliefs about teaching, learning, and education.

The theory related to my practice was determined utilizing three different strategies: self-observation, observation by another, and student surveys. Self-observation was achieved by videotaping the lessons. I had anticipated videotaping all three lessons and then analyzing and reviewing them individually. However, due to technical difficulties, I was only able to conduct this self-analysis with one lesson. After observing the tape in full, I observed it in sections. I took notes on what I said, my nonverbal actions, my interactions with students and the general approach being used. I then analyzed and reflected upon the relationship of my performance as a teacher to my espoused beliefs about teaching.

In addition to observing my own performance, I asked the course instructor to observe each lesson and then dialogue with me on what he observed in terms of my delivery, the extent to which my delivery matched my espoused theory, student actions and reactions as well as my interactions with them. I discussed my ideal teaching theory with the professor and prior to each lesson, I described how the class was going to be taught and what I was trying to accomplish. I restated the theoretical framework from which I was operating each time. After the lesson, the professor and I would debrief based on what was observed during the lecture related to his observation. I took notes during these conversations and blended this data with the information gathered from the videotaped lesson. I then complied all of the information to determine the extent to which my espoused theory matched my theory in practice. I also gathered data from the students.

Two different student evaluations were used. The first was a six question, 5-point Likert scale that the students filled out at the end of each lecture (Appendix A). It was adapted from an evaluation used by faculty in the Department of Pharmacy Care Systems. In addition, several written comments were made and included in the results. A second evaluation form was used for the last session to generate open-ended responses from the students in an attempt to gather more detailed information regarding student perceptions of instruction (Appendix B). A second reason for the change was due to the conflicting data obtained for the first two lessons. The student survey data appeared to be different from the findings of self-observation and the faculty observer. It was believed that this additional instrument might help explain the differences in perception. The students were advised at the beginning of each lesson that the evaluation was anonymous and should be completed honestly. Students were told that these evaluations were going to be used to help the researcher develop his teaching skills and that written comments were welcome.

Setting

The physical environment in which I taught was a factor over which I had no control. The room was roughly twenty feet wide and forty to fifty feet long with a portable podium, chalkboard, and a slide screen in the front of the room. A slide projector was located in the back of the room. The classroom seated up to fifty students and was arranged with desks in straight rows starting five feet in front of the podium.

There were twenty-seven students in each class. I used a pre-determined lesson including slides which had been developed by the professor. Each class lasted for fifty

minutes. I was familiar with the content for the first two lessons having been exposed to it in a variety of pharmacy practice settings. The third lesson, "Training Issues in Pharmacy," was the most familiar to me because I had given a similar training lecture in other classes. The three lessons were taught in this order.

1. Specialization in Pharmacy Practice: This was an overview of several specialized areas of practice within pharmacy. Some of the topics covered included Oncology, Pediatrics, Transplant, and Code Management.

2. Investigational Drug Services: This lesson presented an overview of investigational drugs, how they are used within hospitals, how studies are initiated, who oversees the study, an investigational review board, and the problems that can occur when starting an investigational drug service.

3. Training Issues in Pharmacy: This session contained an overview of how to determine if an individual requires training, how to train, different methods of training, the costs of training, and the benefits and problems associated with training.

Espoused Teaching Theory

I used Grundy as a framework of understanding my theoretical viewpoint (8). She identifies three theoretical frameworks for curriculum deliberation, development and practice. The technical interest, based upon the positivist view in which empirical knowledge is generated through observation, generally places the teacher as "knowledge giver" and the student as passive learner. The practical interest, based upon historical-hermeneutics focuses upon understanding the meaning and interactions of reality and the environment. The teacher becomes guide and facilitator

and the learner is a partner in the process of creating meaning. The emancipatory interest, founded upon autonomy of self, relies upon intuition and the freeing of oneself from the environment and the creation of knowledge and understanding in union with others. The teacher becomes a sojourner and equal as knowledge is sought and created.

Reflection on my present beliefs and past teaching experiences led me to believe that my approach embodied a practical theoretical view even though I was previously unaware of it. Thus, as I approached the task of teaching my pharmacy class, I intended to involve students in the learning process and in the evaluation of the methodology employed. In addition, I planned to focus on the process as opposed to the outcome with respect to the in-class interaction and the assessment of the student. My goal would be to engage the student to actively participate in his or her own education. Since this required a response on the part of the student, I decided to reflect upon my expectations of students in terms of the learner characteristics which would be necessary.

I conceived of the learner as those in humanist philosophy, as an adventurous inquirer (6). I believed that the student would be willing to engage in inquiry in the class and look beyond the classroom to expand upon the learning and apply it to the world in general. I also viewed the student as a colleague with a commitment to learning (9). I wanted to establish a learning environment that would help students become more responsible for their own education.

Findings

Observations

Lesson one: Specialization in pharmacy.

I began this lesson by asking the students to name different areas available to them when they graduate and enter practice. This was done to introduce the students to the subject matter for the lesson. There was minimal student involvement following the opening questions, with five students offering minimal statements regarding job opportunities. Following the opening questions, there was limited student involvement until I presented information regarding the role of a pharmacist during a "code blue" situation. A "code blue" occurs when a patient stops breathing and everything possible is done to resuscitate the patient. This particular topic generated several questions by the students regarding different elements of a code blue situation.

Problems observed during this lesson related to a lack of organization when I was presenting the material. I floated between different topics, making it difficult for the students to follow the lesson. An example of this occurred when I was discussing pediatric chemotherapy and confused the students because chemotherapy was a different speciality. I did not make it clear that I was still discussing pediatrics as a speciality and had not changed subjects to chemotherapy as a speciality. In addition, it was observed that portions of the lesson central to the students understanding were not well reinforced. I would mention the important elements of the lesson, but not restate or reemphasize them during the lesson.

Lesson two: Investigational drug services.

Due to technical difficulties, only the second lesson, the Investigational Drug Services lesson, was videotaped. The session began with a question to the class and then the presentation of a case about investigational products regarding their use in terminally ill patients. This generated several responses and questions from the students. This was observed to help generate discussion as the students gave their opinions on how they would react if they were the patients. Following the case discussion, the lesson appeared to be predominantly a one-way dialogue. Six attempts to get the students involved were made with limited success. Throughout most of the lesson, the students were passive and did not participate in any discussion. Listening and note taking were the most prevalent student activities for the remainder of the lesson.

Several times during the lesson I proceeded either too fast or too slow through the subject matter. In addition, it was observed that on occasion I confused the students with respect to points and subpoints presented on the slides. I did not make it clear what points I was talking about and this caused student confusion, especially during the beginning of the session. An example of the confusion is a slide that outlines four points, each of which had four subpoints, all of which needed to be addressed and were not.

Items noticed in the videotape regarding my performance, were long pauses and frequent gesturing of the hands. Not only were there pauses when the students were writing, but they were also present when I was making transitions between topics. The

long pauses appeared to interrupt the flow of the lecture. I also walked around in front of the podium while teaching. During the entire lesson I appeared to make eye contact throughout the classroom.

Lesson three: Training issues in pharmacy.

I chose to introduce this topic using a juggling demonstration and a student volunteer. The student volunteer was solicited without the student knowing what she was volunteering for. Once the student was at the front of the room, I placed three juggling balls in her hands and asked her to juggle. Following several attempts at juggling, I then showed her how to juggle. At this point, I engaged the entire class and asked them what I was doing when I told the volunteer how to juggle. This prompted a great deal of discussion. Throughout the lesson, I kept referring back to the training demonstration. Each time the juggling was referred to, discussion followed. In addition, I engaged the class with more questions and discussion ideas than I had for the previous two lessons. A portion of the class was two-way dialogue in a which I was facilitating the class as opposed to lecturing to the class.

Student Evaluations

The findings from the student evaluations are presented in Table 1. These results revealed that for the first two lessons, there was no mean score below 4.04 out of a possible 5. This indicates that in the students' view I was fulfilling all points addressed on the student evaluation. Questions, specifically two, four and six, related to classroom discussion and the practical environment. On these questions the student responses indicated a practical environment with a low mean of 4.04 in lesson one and

a high mean of 4.88 in lesson two. The mean scores were higher for lesson two, indicating a more practical classroom than was found in lesson one.

Questions one, three, and five of the evaluation dealt with the more technical elements of the lesson such as preparation, organization and appropriate teaching methods. The mean scores for these questions were also very high, with no score for either lesson below 4.58 out of 5.00. Lesson two was evaluated to be better prepared than lesson one (4.88 vs 4.68), while lesson one had more appropriate teaching methods (4.84 vs 4.58).

Overall, for the first two lessons, seven comments were made. Six of the comments were positive, referring to the lesson as interesting and well organized while one comment stated that I spoke too rapidly. All seven of the comments can be found in Appendix C.

The results from lesson three were qualitative in nature, with twenty-five students responding to the survey. For this lesson a three question, open-ended evaluation form was used. The evaluation form was changed in an attempt to gather more descriptive data than had been obtained from the previous evaluations. The first statement, "Identify one element of the lesson the presenter did well," yielded information identifying both presentation style as well as a practical classroom environment. Eight students identified elements indicating a practical classroom environment such as generating class discussion, the opening demonstration, and the clarity of examples used supported the presence of a practically oriented lesson. The list of findings for question one can be found in Appendix D.

For the second question, "Identify one element of the lesson the presenter did not do well," eight students stated that nothing had been done wrong and the rest of the responses related to the delivery of the session. Elements identified included speaking too fast and being too specific.

The results from the third statement, "Identify one element of the lesson you would change," also yielded results focusing on the style and delivery of the lesson. Elements addressed included the speed with which I spoke and the need for more overheads. In addition, six students stated that nothing needed to be changed regarding the lesson. The complete results from questions two and three can also be found in Appendix D.

Discussion

The results obtained following self-observation through videotaping (Investigational Drug Services lesson) showed a lecture style, more conducive to a technical than a practical approach. There was little participation on the part of the students and the focus of the lesson appeared to be the conveyance of information. With the exception of the opening case, there was little presence of practical theory. Throughout most of the lesson the student was a passive learner, having sporadic awakenings that may have reflected participation. It was also apparent in the video that I seemed more at ease presenting the subject matter as opposed to generating discussions about applying subject matter. The results of the faculty instructor's critique correlated with what was witnessed during the videotape review.

The Specialization in Pharmacy lesson was predominantly technical based on

the findings of the observation by the other instructor. The fact that there was limited discussion and that most of the dialogue was one way supports this belief. In addition, there were times when a lack of clarity was present and that did not manifest itself until later. I made references to certain specialities or areas within pharmacy and did not finish the statement or train of thought. This may have caused student confusion based on my giving them only part of the information. If I had been teaching from a practical approach which engaged students I probably would have identified student confusion quicker.

The training session, the last of the three, appeared to be delivered in the most practical manner. The faculty observer stated that he believed the students enjoyed the opportunity to be involved in the opening demonstration. I provided more opportunities for student interaction by first involving them in the demonstration and then referring to the juggling when I was asking questions. This lesson had the most two-way dialogue of the three lessons, possibly due to the demonstration or to my comfort with the material. I have given variations of the training lesson before, but had never used any type of demonstration to open the lesson. My familiarity with the subject matter may have given me the confidence to initiate a more practical classroom situation. While the self-observation and observation by others yielded one set of findings, the student evaluations identified something else entirely.

The student responses for lessons one and two indicated that the researcher taught from a practical realm even though the faculty member and the videotape presented other findings. Students consistently rated elements related to a practical

teaching approach as high. Thus they viewed the discussions as stimulating, indicated there was a balance between lecture and discussion, and rated the instructor highly in initiating class discussion.

There may be a number of explanations for this conflict. It is possible that most students simply completed the instruments without much thought or that they ranked the instructor highly out of consideration for his welfare. However, the results obtained from the observer dealing with the training lesson (session three) which indicated that the researcher was teaching with many elements of a practical perspective were collaborated by the class comments. The number of suggestions received on question two regarding possible improvements (what did the presenter not do well) and the comments made on sessions one and two, also imply that the students did critically evaluate the presenter. A more likely reason for the differences deal with perceptions of those involved. Since most classes in which students participate tend to contain only a lecture format, they may have viewed even small exercises which engaged them in discussion as stimulating and balanced. Indeed it is probable that most of their school experiences would have incorporated technical teaching strategies (10). Thus the perceptions and expectations of the students may have been different than my own or that of the instructor/observer.

Influences Upon Practice

This study proved to be very enlightening. While I may have one view of how I think students should be taught, it became apparent that I did not incorporate that view into my teaching. I sought to be a practical teacher, but the result was one that

resembled an essentialist and technical approach to education. A significant reason for this may be that I have not found my comfort zone . I do not lack confidence, but I do not exude it either. I am not yet comfortable with teaching and so I wanted to maintain a sense of control over the situation. Likewise my knowledge base of the content to be taught was not strong, shaking my confidence to some extent. This is supported by the fact that the content of session three was more familiar to me than the content in the other two lessons. When I taught that lesson I was able to respond more freely and incorporate my theoretical framework more consistently. Perhaps by that time, I had also gained a greater sense of security and confidence, having met with the students twice before.

Two other important factors seem to have exerted an influence on my practice. First the setting itself was not conducive to engaging students in activities. The physical arrangement was established for a lecture style approach to teaching. In addition, being constrained by having to use someone else's course outline and slides, which necessitated my standing either in front or in back of the room, limited my access and proximity to students, hampering my capacity to engage them in alternative ways. The time limitation of fifty minutes also made it difficult to actively engage students in long discussions or small group activities because there was so much content to be covered. Another important element in this interaction was the attitude of students, their backgrounds and expectations, coupled with my own educational background and experiences. Students in this setting may be used to a passive environment. Often when I would try to engage them in discussion or activities, they would not or could not

respond. They seemed perfectly content to be passive learners, being "filled" with the knowledge I could dispense. I for my part found myself most comfortable in the role of the "dispenser of knowledge." My experience and background have prepared me for that role. Thus, I found myself reverting to that role. I received positive affirmation for doing so through their behavior and their evaluative responses to my performance which in turn reinforced my actions.

Reflections and Directions

One thing became very clear to me as I reflected upon the results of this study: I had just personally experienced the gap between theory and practice. The reasons for this gap were both organizational and personal. This seems to be true of most situations in which one seeks to implement change (11). The idea of utilizing the practical theory with my undergraduates appeared to be a well thought out, logical concept. The problem was that I had not considered the situation , the context, or how the students would react to this type of teaching. Nor had I considered how I would react to these factors. Throughout these lessons, when things got difficult, students didn't respond, I felt uncomfortable-I got technical. Practice overcame theory and my own well-thought out plans and desires.

This experience in reflective practice has enhanced my original passions; asking questions about curriculum design and delivery and striving to be a fine and noble teacher. Among the new questions I have now formulated are; " What are the barriers to implementing practical theory in a classroom setting," " What are students' perceptions regarding good teaching," "Can knowing one's theoretical framework help

inform and improve one's practice." It is this last question that most intrigues and troubles me. The answer to it will determine whether I shall become the teacher and the researcher I strive to be. I will seek the answer and continue my journey into knowing and becoming with fear and courage: fear that I may not achieve that which I aim for and courage to travel into the unknown. For it is there I hope to find wisdom and grow as a teacher, a learner, and a knowledge seeker.

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Table #1: Results from Likert scale evaluations for the first two lessons given.

Lesson 1: Specialization in Pharmacy

Lesson 2: Investigational Drug Services

Mean results of 1 to 5 scale. N=25

Questions	Lesson 1	Lesson 2
1. Presentation was well prepared	4.68	4.88
2. Class discussion was stimulating	4.72	4.04
3. Teaching methods were appropriate	4.84	4.58
4. There was a balance between lesson and discussion	4.72	4.38
5. Material was presented in organized fashion	4.72	4.72
6. The instructor initiated class discussion	4.88	4.28

Appendix A

Likert scale Evaluation Form used Following the "Specialization in Pharmacy" and the "Investigational Drug Products" Lectures

SESSION EVALUATION

Speaker:_____ Date:_____

Topic: _____

Please circle the number that describes your response to each statement below according to this scale:

Strongly Agree 5	Agree 4	Not Applicable or Neutral 3	Disagree 2	Strongly Disagree 1

1.	Presentation was well prepared.	5	4	3	2	1
2.	Class discussion was stimulating.	5	4	3	2	1
3.	Teaching methods were appropriate.	5	4	3	2	1
4.	There was a balance between lecture and discussion.	5	4	3	2	1
5.	Material was presented in organized fashion.	5	4	3	2	1
6.	The instructor initiated class discussion	5	4	3	2	1

Appendix B

Open-ended Evaluation Form used Following the "Training" Lecture

SESSION EVALUATION

Speaker:_____ Date:_____

Topic: _____

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1. Identify 1 element of the lesson the presenter did well:

2. Identify 1 element of the lesson the presenter did not do well:

3. Identify 1 element of the lesson you would change:

Appendix C

Written Comments Obtained during Lessons One and Two

Lesson One, Specialization in Pharmacy

1. Very interesting, I enjoyed this lecture and would like to hear more about these topics.
2. Question #3: Code was good
3. I lost the big picture but the overall lecture was good.

Lesson Two, Investigational Drug Services

1. Talked a little too rapidly
2. Much better (or smoother) or improved lecture than the previous one.
3. It was well organized, informational, and not boring.
4. It was a lot better than your first lecture, nothing went over my head.

Appendix D

Results of Student Evaluation for Training Lesson

Identify 1 element of the lecture the presenter did well

1. lecture was clear - nine students
2. topic introduction - four students
3. generated class discussion - three students
4. gave clear examples - three students
5. the demonstration - two students
6. specific content areas - four students

Identify 1 element of the lecture the presenter did not do well

1. nothing (nothing wrong) - eight students
2. content specific - two students
3. spoke too fast - one student
4. not in full view of students - one student
5. too specific - one student
6. needed to give more time for students to write - one student
7. spoke too slow - one student
8. used abbreviations not easily understood - one student
9. dismissal of helper - one student
10. question not answered - five students

Identify 1 element of the lecture you would change

1. more slides or overheads - four students
2. change nothing - six students
3. talk slower - one student
4. relating training to different areas - one student
5. content specific - one student
6. review of specific training techniques - one student. question not answered - eight students